

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 14, 2004. Claims 1, 2, 4 to 14, 16 to 21, 23 to 33, 35 to 40, 42 to 52, 54 to 59, 61 to 71 and 73 to 76 remain in the application, with Claims 3, 15, 22, 34, 41, 53, 60 and 72 having been canceled. Claims 1, 20, 39 and 58 are the independent claims herein. Reconsideration and further examination are respectfully requested.

Claims 1 to 76 were rejected under 35 U.S.C. § 103(a) over U.S. Publication No. 2002/0101604 (Mima) in view of U.S. Patent No. 6,665,081 (Suzuki). Reconsideration and withdrawal of the rejections are respectfully requested.

The present invention concerns printing of divided print jobs by a plurality of printers. According to the invention, device-independent-format data converted from data provided by an application is spooled, and from the spooled device-independent-format data, a plurality of pieces of divided print data (formed in a device-independent-format) are generated for distribution printing. The generated plurality of pieces of divided print data are then output to respective corresponding printer drivers such that a plurality of pieces of print data, generated in a device-dependent format, are output to the respective ones of the plurality of printers. Thus, even though a print job may be divided to be output to different types of printers, since the device-independent-format data is divided and provided to the printer drivers, each respective portion of the print job can be processed by the respective printer driver according to the particular type of printer.

With specific reference to the claims, amended independent Claim 20 is an information processing method for dividing a print job to make a plurality of printers execute a print process, comprising a spooling step of spooling device-independent-format data converted from data provided by an application, an assignment step for generating

from the device-independent-format data spooled by the spooling step, a plurality of pieces of divided print data for distribution printing, the divided print data being formed in a device-independent-format, an output step for outputting the plurality of pieces of divided print data generated by the assignment step to respective corresponding printer drivers, and an output control step of outputting a plurality of pieces of print data, generated in a device-dependent format from the respective ones of the plurality of pieces of divided print data output by the output step, to the respective ones of the plurality of printers, wherein the assignment step is able to assign the plurality of pieces of divided print data in the device-independent format to the printer drivers that generate different types of print data.

Amended independent Claims 1, 39 and 58 are apparatus, computer-medium and computer program claims, respectively, that substantially correspond to Claim 20.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 1, 20, 39 and 58, and in particular, is not seen to disclose or to suggest at least the feature of spooling device-independent-format data converted from data provided by an application, generating, in a device-independent format from the spooled device-independent-format data, a plurality of pieces of divided print data for distribution printing, and outputting the plurality of pieces of divided print data to respective corresponding printer drivers.

Mima is merely seen to perform parallel printing in a environment where a plurality of printers are connected to a network. Mima assigns print data, in a device-dependent-format generated by a single printer driver 23, to a plurality of printer systems 9, 11, 13, each of which then generates print job agents 25a-25c. Thus, Mima merely assigns a plurality of pieces of print data generated by one printer driver to a plurality of devices

and therefore, the printer systems must be able to print the same type of print data generated by the single printer driver. Therefore, Mima is not seen to disclose or to suggest anything with regard to generating divided data, in a device-independent-format, from spooled device-independent-format data, and outputting the divided device-independent-format data to respective printer drivers so they can then generate device-dependent data for the respective printer. Accordingly, Mima is not seen to disclose or to suggest the features of Claims 1, 20, 39 and 58.


Suzuki is not seen to add anything that, when combined with Mima, would have rendered the present invention obvious. In this regard, Suzuki is merely seen to disclose a system in which a host computer 1 generates print data in intermediate code format by a printer driver 8 and then sends print data of intermediate code to a page printer 3. Thus, assuming arguendo that Suzuki could have been combined with Mima, a point which Applicants do not concede, it is submitted that, at best, such a combination would have resulted in the single printer driver of Mima generating intermediate code print data that is then divided and transmitted to different printers where the data is converted by the printer and printed. However, it is readily apparent that such a combination would not have resulted in the present invention of spooling device-independent-format data converted from data provided by an application, generating, in a device-independent format from the spooled device-independent-format data, a plurality of pieces of divided print data for distribution printing, and outputting the plurality of pieces of divided print data to respective corresponding printer drivers.

In view of the foregoing deficiencies of Mima and Suzuki, amended independent Claims 1, 20, 39 and 58, as well as the claims dependent therefrom, are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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